IP Camera 200 Series

NTC-265-PI

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BOSCH

en Installation Manual

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1 Safety

1.1 Safety precautions

DANGER!
High risk: This symbol indicates an imminently hazardous situation such as "Dangerous Voltage" inside the product.
If not avoided, this will result in an electrical shock, serious bodily injury, or death.

WARNING!
Medium risk: Indicates a potentially hazardous situation.
If not avoided, this could result in minor or moderate bodily injury.

CAUTION!
Low risk: Indicates a potentially hazardous situation.
If not avoided, this could result in property damage or risk of damage to the device.

1.2 Important safety instructions

Read, follow, and retain for future reference all of the following safety instructions. Heed all warnings on the unit and in the operating instructions before operating the unit.

1. **Cleaning -** Generally, using a dry cloth for cleaning is sufficient but a moist, fluff-free cloth or leather shammy may also be used. Do not use liquid cleaners or aerosol cleaners.
2. **Heat Sources -** Do not install the unit near any heat sources such as radiators, heaters, stoves, or other equipment (including amplifiers) that produce heat.
3. **Water -** Never spill liquid of any kind on the unit.
4. **Lightning -** Take precautions to protect the unit from power and lightning surges.
5. **Controls adjustment -** Adjust only those controls specified in the operating instructions. Improper adjustment of other controls may cause damage to the unit.
6. **Power sources -** Operate the unit only from the type of power source indicated on the label.
7. **Servicing -** Unless qualified, do not attempt to service this unit yourself. Refer all servicing to qualified service personnel.
8. **Replacement parts -** Use only replacement parts specified by the manufacturer.
9. **Installation -** Install in accordance with the manufacturer's instructions and in accordance with applicable local codes.
10. **Attachments, changes or modifications -** Only use attachments/accessories specified by the manufacturer. Any change or modification of the equipment, not expressly approved by Bosch, could void the warranty or, in the case of an authorization agreement, authority to operate the equipment.

1.3 FCC & ICES compliance

FCC & ICES Information

This equipment has been tested and found to comply with the limits for a **Class B** digital device, pursuant to *part 15* of the *FCC Rules*. These limits are designed to provide reasonable protection against harmful interference in a **residential installation**. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- reorient or relocate the receiving antenna;
- increase the separation between the equipment and receiver;
- connect the equipment into an outlet on a circuit different from that to which the receiver is connected;
- consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. this device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation.

Intentional or unintentional modifications, not expressly approved by the party responsible for compliance, shall not be made. Any such modifications could void the user's authority to operate the equipment. If necessary, the user should consult the dealer or an experienced radio/television technician for corrective action.

The user may find the following booklet, prepared by the Federal Communications Commission, helpful: *How to Identify and Resolve Radio-TV Interference Problems*. This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

1.4 UL certification

Disclaimer

Underwriter Laboratories Inc. ("UL") has not tested the performance or reliability of the security or signaling aspects of this product. UL has only tested fire, shock and/or casualty hazards as outlined in UL's *Standard(s) for Safety for Closed Circuit Television Equipment, UL 2044*. UL Certification does not cover the performance or reliability of the security or signaling aspects of this product.
UL MAKES NO REPRESENTATIONS, WARRANTIES, OR CERTIFICATIONS WHATSOEVER REGARDING THE PERFORMANCE OR RELIABILITY OF ANY SECURITY OR SIGNALING RELATED FUNCTIONS OF THIS PRODUCT.

1.5 Bosch notices

Disposal - Your Bosch product was developed and manufactured with high-quality material and components that can be recycled and reused. This symbol means that electronic and electrical appliances, which have reached the end of their working life, must be collected and disposed of separately from household waste material. Separate collecting systems are usually in place for disused electronic and electrical products. Please dispose of these devices at an environmentally compatible recycling facility, per *European Directive 2002/96/EC*

More information

For more information please contact the nearest Bosch Security Systems location or visit *www.boschsecurity.com*

1.6 Copyrights

The firmware 4.1 uses the fonts "Adobe-Helvetica-Bold-R-Normal--24-240-75-75-P-138-ISO10646-1" and "Adobe-Helvetica-Bold-R-Normal--12-120-75-75-P-70-ISO10646-1" under the following copyright:
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Permission to use, copy, modify, distribute and sell this software and its documentation for any purpose and without fee is hereby granted, provided that the above copyright notices appear in all copies and that both those copyright notices and this permission notice appear in supporting documentation, and that the names of Adobe Systems and Digital Equipment Corporation not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission.

This software is based in part on the work of the Independent JPEG Group.

2 Introduction

2.1 Features

The Bosch NTC-265-PI 720p infrared IP bullet camera is a ready-to-use, robust network camera. This camera offers a cost effective solution for a broad range of applications. The robust aluminum camera body is IP66 rated, offering water and dust proofing for demanding environments. The built-in active infrared illuminator ensures effective vision under extreme low-light conditions. The camera easily integrates with the Bosch DVR 700 Series recorder and can also be used with an iSCSI server connected via the network to store long-term recordings. Features include:

- High performance active infrared illuminator inside the camera for extreme low-light environments
- Tri-streaming: Two H.264 streams and one M-JPEG stream
- HD 720p Progressive scan for sharp images of moving objects
- Robust IP66-rated camera design
- Two-way audio and audio alarm
- Power over Ethernet (IEEE 802.3af compliant)
- Tamper and motion detection
- Conforms to the ONVIF standard for wide compatibility

2.2 Unpacking

Unpack carefully and handle the equipment with care.
The packaging contains:

- IP camera with lens
- Torx screwdriver
- Camera fixing screw kit
- Installation paper sticker
- Quick installation guide
- CD ROM
  - Bosch Video Client
  - Documentation
  - Tools

If equipment has been damaged during shipment, repack it in the original packaging and notify the shipping agent or supplier.

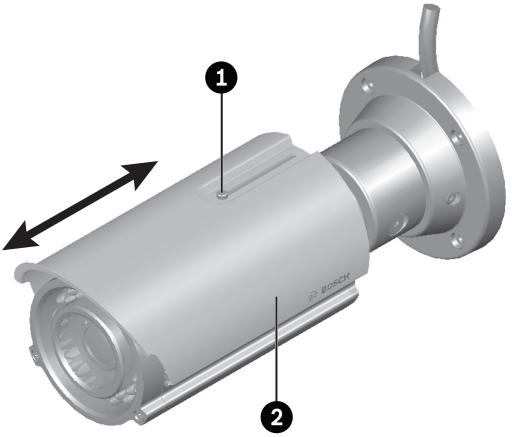
WARNING!
Installation should only be performed by qualified service personnel in accordance with the National Electrical Code or applicable local codes.

CAUTION!
The camera module is a sensitive device and must be handled carefully.

3 Installation

3.1 Assembly

The sun hood on the camera/housing unit can be adjusted.



1. Adjustment screw
2. Sun hood

To adjust the sun hood proceed as follows:

1. Using the special screwdriver bit supplied, loosen the top adjustment screw (1) in the housing.
2. Slide the sun hood (2) to the desired position.
3. Tighten the top adjustment screw (1).

3.2 Mounting

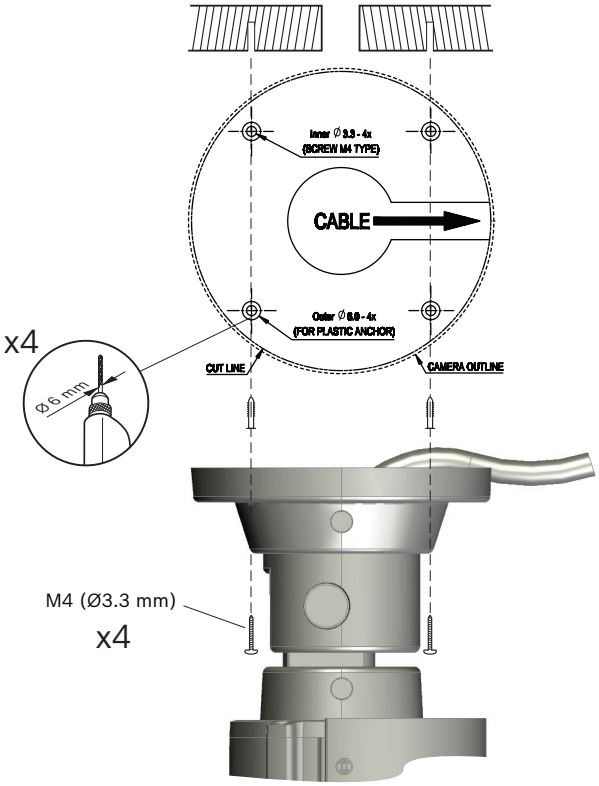


Figure 3.1 Mounting the camera

To mount the camera to a wall or ceiling:

1. Stick the supplied installation paper sticker to the surface taking care to orientate it correctly.
2. Drill four holes with a diameter of 6 mm.
3. Insert the supplied plugs into the holes.
4. Attach the camera and base unit securly to the surface using the two supplied M4 screws.

CAUTION!
Do not point the camera/lens into direct sunlight as this may damage the sensors.

3.3 Network (and power) connector

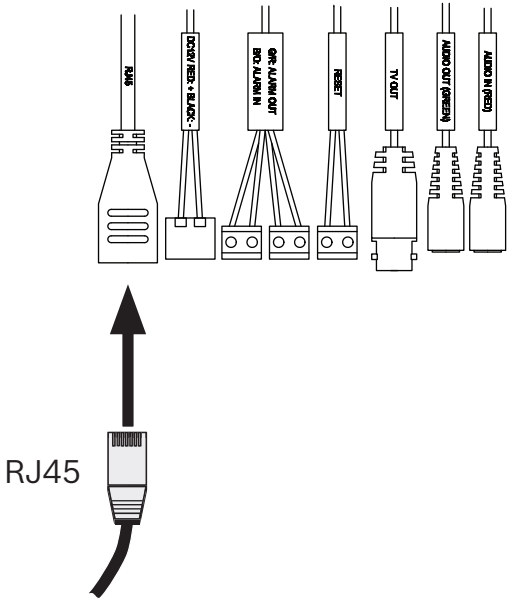


Figure 3.2 Network connection

- Connect the camera to a 10/100 Base-T network.
- Use a shielded UTP Category 5e cable with RJ45 connectors.
- Power can be supplied to the camera via the Ethernet cable compliant with the Power-over-Ethernet (IEEE 802.3af) standard.

CAUTION!
This equipment is only to be connected to PoE networks without routing to outside plant.

3.4 Power connection

The camera can accept power from both the DC12V power input and the Ethernet input at the same time. You can remove either one of the power sources without interrupting camera operation.

3.4.1 DC power connection

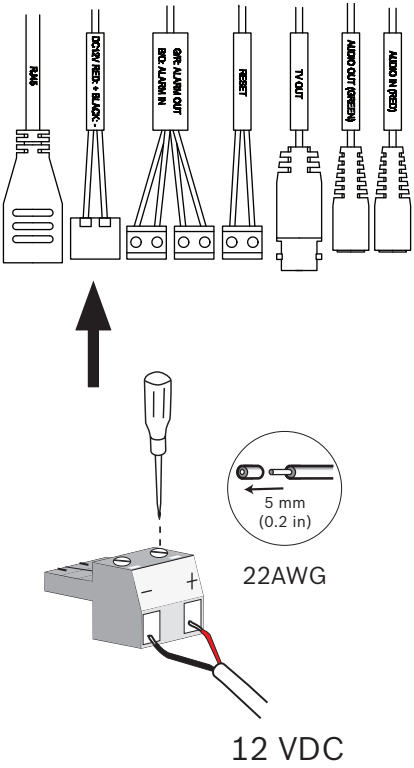


Figure 3.3 DC power connection

Connect power from a 12 VDC class 2 power supply as follows:

1. Use AWG22 wire; cut back 5 mm (0.2 in) of insulation.
2. Remove the 2-pole connector from the camera cable tree.
3. Loosen the screws and insert the wires.
4. Tighten the screws and reconnect the 2-pole connector to the power connector of the camera cable tree.

3.5 I/O connector

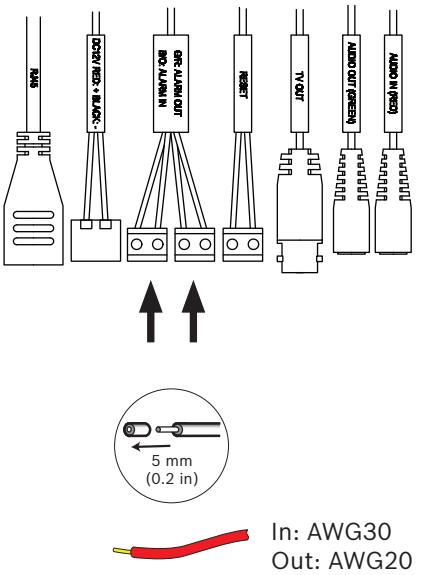


Figure 3.4 I/O connector pins

Function	Wire	Color
Relay out	AWG20	Grey
	AWG20	Red
Alarm input	AWG30	Orange
	AWG30	Brown

- Cut back 5 mm (0.2 in) of insulation.
- Relay switching capability: Max. voltage 24 VAC or 24 VDC. Max. 1 A continuous, 12 VA.
- Alarm in: Short or +5 VDC activation.
- Alarm input configurable as active low or active high.

3.6 Audio connectors

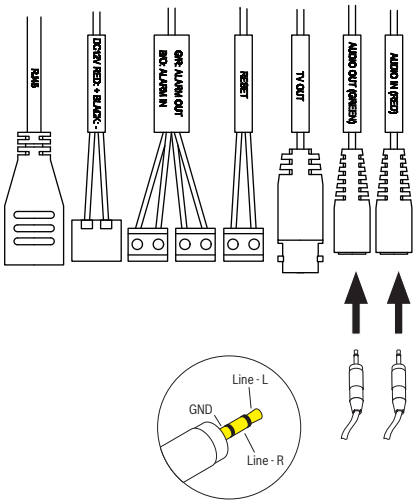


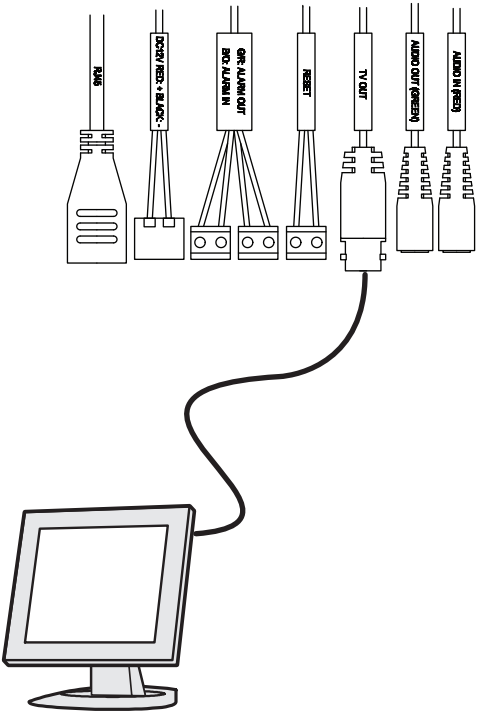
Figure 3.5 Audio connectors

Connect audio devices to the **Line In** and **Line Out** connectors.

– Line in: 9 kOhm typical, 200 mVrms
– Line out: 16 Ohm minimum 200 mVrms (earphone compatible)

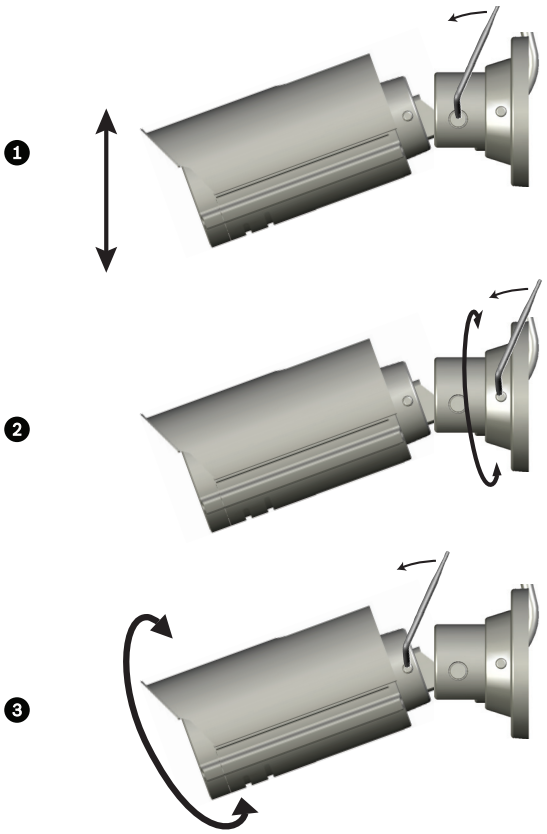
3.7 Camera set-up

To help set up the camera, connect a monitor to the BNC connector of the camera cable tree. This connector provides a composite video signal (with sync) for installation purposes only.



3.7.1 Camera positioning

The camera position can be adjusted along three axes. When adjusting ensure that the picture display on the monitor is level.



Set the camera to the desired position using the supplied Torx screwdriver:

1. For vertical adjustment (1), loosen the locking screw and move the camera housing to the desired angle. Tighten the screw.
2. For horizontal adjustment (2), loosen the locking screw and rotate the camera housing around the base. Tighten the screw.
3. To obtain a horizontal horizon (3), rotate the camera body as necessary to align the picture shown on the monitor.

3.8 Resetting the camera

If the camera cannot be connected because the IP address has changed, short circuit the reset connector for approximately 7 seconds to recall the factory default values. The factory default IP address is 192.168.0.1

4 Browser connection

A computer with Microsoft Internet Explorer can be used to receive live images from the camera, control cameras, and replay stored sequences. The camera is configured over the network using a browser or via the Bosch Video Client (supplied with the product).

4.1 System requirements

- Microsoft Internet Explorer version 7.0 or higher
- Monitor: resolution at least 1024 × 768 pixels, 16 or 32 bit color depth
- Intranet or Internet network access

The Web browser must be configured to enable Cookies to be set from the IP address of the unit.
In Windows Vista, deactivate protected mode on the **Security** tab under **Internet Options**.

To play back live video images, an appropriate ActiveX must be installed on the computer. If necessary, the required software and controls can be installed from the product disk provided.

a. Insert the disk into the optical drive of the computer. If the disk does not start automatically, open the root directory of the disk in Windows Explorer and double click `BVC-installer.exe`
b. Follow the on-screen instructions.

To get full support for recordings and snapshots, install the `MPEG_ActiveX` from the product disk to your computer.

4.2 Establishing the connection

The camera must be assigned a valid IP address to operate on your network. The default address pre-set at the factory is `192.168.0.1`

1. Start the Web browser.
2. Enter the IP address of the camera as the URL.

Note:
If the connection is not established, the maximum number of possible connections may already have been reached. Depending on the device and network configuration, up to 25 web browsers, or 50 Bosch VMS connections are supported.

4.2.1 Password protection in camera

A camera offers the option of limiting access across various authorization levels. If the camera is password-protected, a message to enter the password appears.

1. Enter the user name and the associated password in the appropriate fields.
2. Click **OK**. If the password is correct, the desired page is displayed.

4.3 Protected network

If a RADIUS server is used for network access control (802.1x authentication), the camera must be configured first. To configure the camera for a Radius network, connect it directly to a PC via a crossed network cable and configure the two parameters, **Identity** and **Password**. Only after these have been configured can communication with the camera via the network occur.

5 Troubleshooting

5.1 Resolving problems

The following table is intended to help identify the causes of malfunctions and correct them when possible.

Malfunction	Possible causes	Solution
No image transmission to remote location.	Faulty cable connections.	Check all cables, plugs, contacts and connections.
No connection established, no image transmission.	The unit's configuration.	Check all configuration parameters.
	Faulty installation.	Check all cables, plugs, contacts and connections.

5.2 Customer service

If a fault cannot be resolved, please contact your supplier or system integrator, or contact Bosch Security Systems Customer Service directly.

The Installer should write down all information regarding the unit so that it can be referenced for warranty or repair. The version numbers of the firmware and other status information can be seen when the unit starts or by opening the **Service** menu. Note down this information and the information found on the camera label before contacting customer service.

6 Maintenance

6.1 Repairs

CAUTION!

Never open the casing of the camera. The unit does not contain any user serviceable parts. Ensure that all maintenance or repair work is performed only by qualified personnel (electrical engineering or network technology specialists). If in doubt, contact your dealer's technical service center.

6.1.1 Transfer and disposal

The camera should only be passed-on together with this installation guide. The unit contains environmentally hazardous materials that must be disposed of according to law. Defective or superfluous devices and parts should be disposed of professionally or taken to your local collection point for hazardous materials.

7 Technical Data

7.1 Specifications

Input voltage	+12 VDC or Power-over-Ethernet
Power consumption	6.72 W (max)
Sensor type	¼-inch CMOS
Sensor pixels	1280 x 800
Sensitivity	0.3 lx (IR off) 0 lx (IR on)
Video resolution	720p, 480p, 240p
Video compression	H.264 MP 720p30; H.264 MP SD; H.264 BP+ (Baseline Profile Plus); M-JPEG
Max. frame rate	30 fps
Night vision	25 m (82 ft)
LED	32 LED high efficiency array, 850 nm
Lens type	Varifocal 2.7 to 9 mm, F1.2 to close, D/N switch
Analog video output	BNC connector
Alarm Input	Short or 5 VDC activation
Relay Out	Switch rating: Max. 1 A 24 VAC/VDC
Audio Input	Line in jack connector
Audio Output	Line out jack connector

Audio communication	Two-way, full duplex
Audio compression	G.711, L16, AAC (live and recording)
Unit Configuration	Via web browser or PC surveillance software
Protocols	HTTP, HTTPs, SSL, TCP, UDP, ICMP,RTSP, RTP, Telnet, IGMPv2/v3, SMTP,SNTP, FTP, DHCP client, ARP, DNS,DDNS, NTP, SNMP, UPnP, 802.1X, iSCSI
Ethernet	10/100 Base-T, auto-sensing, half/full duplex, RJ45
PoE	IEEE 802.3af compliant
Dimensions (H x W x D)	100 x 100 x 291 mm (3.94 x 3.94 x 11.46 in)
Weight	1.6 kg (3.53 lb) approx.
Ingress Protection	IP66
Operating Temperature	-20 ºC to +50 ºC (-4 ºF to +122 ºF)
Storage Temperature	-20 ºC to +70 ºC (-4 ºF to +158 ºF)
Humidity	Less than 90% relative humidity (non-condensing)

7.1.1 Accessories

Contact a Bosch representative in your area for the latest available accessories or visit our website at *www.boschsecurity.com*

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